

Amendment Of The Claims

The listing of the claims will replace all prior versions and listing of the claims in the application.

Listing of Claims

1-13. (Cancelled)

14. (Currently Amended) Apparatus for the anaerobic fermentation of raw materials, comprising a tank comprising:

preacidification region for receiving said raw materials comprising acidification bacteria,

a main load stage region comprising media for degrading the preacidified material while producing biogas,

a light load stage region comprising media for further degrading the preacidified material while producing biogas,

a sedimentation region provided with at least one discharge device,

wherein the preacidification region, high main load stage region, light load stage region and sedimentation region are separated by partition walls, and

a gas tight sheeting which extends over the heavy main load region and light load region and forms a gas reservoir, and

means for segregating the raw material from the preacidified material and selectively transporting the preacidified material into the high main load region.

15. (Previously Presented) Apparatus according to claim 14, wherein said means for segregating the raw material from the preacidified material and selectively transporting the preacidified material into the high load region comprise a withdrawal device for withdrawal of material from an upper portion of said preacidification region.

16. (Currently Amended) Apparatus according to claim 15, wherein said means for segregating the raw material from the preacidified material and selectively transporting the preacidified material into the ~~high~~ main load region comprise a control device for said withdrawal device, with which said withdrawal device can be driven.

17. (Currently Amended) Apparatus according to claim 14, wherein said means for segregating the raw material from the preacidified material and selectively transporting the preacidified material into the ~~high~~ main load region comprise a sieve.

18. (Currently Amended) Apparatus according to claim 14, wherein said means for segregating the raw material from the preacidified material and selectively transporting the preacidified material into the ~~high~~ main load region comprise a flotation device and a withdrawal device in a lower portion of said preacidification region.

19. (Currently Amended) Apparatus according to claim 18, wherein said means for segregating the raw material from the preacidified material and selectively transporting the preacidified material into the ~~high~~ main load region comprise a control device for said withdrawal device, with which said withdrawal device and said flotation device can be driven

20-26. (Cancelled)

27. (Previously Presented) Apparatus according to claim 15, wherein the withdrawal device for withdrawing material from the upper portion of said preacidification region comprises a spillway of said preacidification region.

28. (Previously Presented) Apparatus according to claim 15, wherein the withdrawal device for withdrawing material from the upper portion of said preacidification

region comprises a withdrawal nozzle arranged in the upper portion of said preacidification region.

29. (Previously Presented) Apparatus according to claim 14, comprising an agitation device for agitating materials in the preacidification region and a control device for controlling operation of the agitation device.

30. (Previously Presented) Apparatus according to claim 14, comprising a mechanical comminution device for comminuting at least part of the raw material.

31. (Currently Amended) Method for the anaerobic fermentation of raw materials comprising solids, comprising:

providing a tank comprising:

a preacidification region for receiving said raw materials comprising acidification bacteria,

a main load stage region comprising media for degrading the preacidified material while producing biogas,

a light load stage region comprising media for further degrading the preacidified material while producing biogas,

a sedimentation region provided with at least one discharge device,

wherein the preacidification region, high main load stage region, light load stage region and sedimentation region are separated by partition walls, and

a gas tight sheeting which extends over the heavy main load region and light load region and forms a gas reservoir, and

means for segregating the raw material from the preacidified material and selectively transporting the preacidified material into the high main load region,

introducing the raw materials into the preacidification region,
preacidifying at least a portion of the raw materials in the preacidification region
transferring the preacidified materials from the preacidification region to the high
main load region while retaining the raw materials which have not been preacidified in the
preacidification region, and

fermenting the preacidified materials in the high load region.

32. (Currently Amended) Method according to claim 31, wherein the step of
transferring preacidified materials from the preacidification region to the high main load region
while retaining the raw materials which have not been preacidified in the preacidification region
comprises permitting the materials in the preacidification region to settle and subsequently
withdrawing materials from an upper portion of said preacidifier.

33. (Currently Amended) Method according to claim 31, wherein the step of
transferring preacidified materials from the preacidification region to the high main load region
while retaining the raw materials which have not been preacidified in the preacidification region
comprises conveying the preacidified materials through a sieve.

34. (Currently Amended) Method according to claim 31, wherein the step of
transferring preacidified materials from the preacidification region to the high main load region
while retaining the raw materials which have not been preacidified in the preacidification region
comprises feeding gas into the preacidifier in a lower portion of the preacidification region for
effecting flotation in the preacidification region, and withdrawing materials from the lower
portion of said preacidification region.

35. (Previously Presented) Method according to claim 31, wherein said raw
materials comprise fluids and solids.

36. (Previously Presented) Method according to claim 31, comprising pretreating the raw materials prior to introducing the raw materials into the preacidification region.

37. (Previously Presented) Method according to claim 36, wherein the step of pretreating the raw materials comprises mechanically comminuting the solids.

38. (Previously Presented) Method according to claim 31, comprising retaining the solids in the preacidification region for a mean duration of 30 to 150 hours.